

AMENDMENTS

In the Claims

1. (Canceled)

2. (Currently Amended) A device for producing a composite digital video data stream containing pixel data corresponding to an image to be rendered, the composite digital video data stream being formed from multiple digital video data streams, each of the multiple digital video data streams being provided by a graphics pipeline, each graphics pipeline being configured to process pixel data corresponding to at least a portion of the image to be rendered, said device comprising:

an input mechanism configured to receive the multiple digital video data streams from the graphics pipelines, provide a frame of data corresponding to the image to be rendered, and insert pixel data from the multiple digital video data streams into said frame of data such that, in response to receiving a first of the multiple digital video data streams, said input mechanism provides said frame of data and inserts the pixel data from the first of the multiple digital video data streams into a corresponding portion of said frame of data to form at least a portion of the composite digital video data stream; ~~The device of claim 1,~~

wherein said input mechanism has a first compositing element and a second compositing element, said first compositing element being configured to provide said frame of data corresponding to the image to be rendered in response to receiving pixel data corresponding to the first of the multiple digital video data streams, said first compositing element being further configured to insert the pixel data corresponding to the first of the multiple digital video data streams into said corresponding portion of said frame of data to form a first compositing digital video data stream, said second compositing element being

configured to receive pixel data corresponding to the second of the multiple digital video data streams and said first compositing digital video data stream, said second compositing element being further configured to combine the pixel data corresponding to the second of the multiple digital video data streams and said first compositing digital video data stream to form a second compositing digital video data stream.

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3. (Currently Amended) he device of claim 1-2, wherein the multiple digital video data streams simultaneously provide pixel data to said input mechanism, the first of the multiple digital video data streams containing three-dimensional pixel data corresponding to the image to be rendered, the second of the multiple digital video data streams containing two-dimensional pixel data corresponding to the image to be rendered, and wherein said input mechanism is configured to combine said two-dimensional pixel data and said three-dimensional pixel data by replacing at least a portion of the pixel data provided by the second of the multiple digital video data streams with at least a portion of the pixel data provided by the first of the multiple digital video data streams.

4. (Currently Amended) The device of claim 1-2, further comprising:
a controller electrically communicating with said input mechanism, said controller being configured to provide a first control signal to said input mechanism, said first control signal containing information regarding which portion of said frame of data corresponds to the pixel data provided from the first of the multiple digital video data streams such that, in response to receiving said first control signal and the pixel data from the first of the multiple digital video data streams, said input mechanism inserts the pixel data from the first of the multiple digital video data streams into said corresponding portion of said frame of data to form at least a portion of the composite digital video data stream.

5. (Currently Amended) The device of claim 1-2, further comprising:

an output mechanism electrically communicating with said input mechanism, said output mechanism being configured to receive the composite digital video data stream and provide an output composite video data stream, said output composite video data stream being selectively configurable as any one of an analog video data stream, an analog stereo video data stream, a digital video data stream, and a digital stereo video data stream.

6. (Original) The device of claim 2, wherein said controller is configured to provide a second control signal to said input mechanism, said second control signal corresponding to one of multiple compositing modes, a first of said compositing modes corresponding to each of the graphics pipelines providing pixel data associated with an entire frame of the image to be rendered, the pixel data of each of the graphics pipelines including a coordinate value offset with respect to pixel data of others of the graphics pipelines, said input mechanism being configured to combine the pixel data from the multiple digital video data streams so as to blend color values associated with corresponding coordinate values.

7. (Original) The device of claim 2, wherein said controller is configured to provide a second control signal to said input mechanism, said second control signal corresponding to one of multiple compositing modes, a first of said compositing modes corresponding to each of the graphics pipelines providing pixel data associated with a portion of the image to be rendered, the pixel data of each of the graphics pipelines being super sampled, said input mechanism being configured to average, with a selected weighting, the super-sampled pixel data.

8. (Original) The device of claim 2, wherein said controller is configured to provide a second control signal to said input mechanism, said second control signal corresponding to one of multiple compositing modes, a first of said compositing modes corresponding to each of the graphics pipelines providing pixel data associated with a portion of the image to be rendered, said input mechanism being configured to combine the pixel data from the multiple digital video data streams to form the composite digital video data stream.


9. (Original) The device of claim 5, wherein said output mechanism has a first left channel frame buffer, a second left channel frame buffer, a first right channel frame buffer, and a second right channel frame buffer, said output mechanism being selectively configured to provide said passive digital stereo video data stream by receiving said composite digital video data stream, allocating pixel data from said composite digital video data stream to said first left channel frame buffer, said second left channel frame buffer, said first right channel frame buffer, and said second right channel frame buffer, and simultaneously outputting pixel data from one of said left channel frame buffers and one of said right channel frame buffers.

10 – 18 (Canceled)

19. (Newly Added) The device of claim 2, wherein said controller is configured to provide a second control signal, a third control signal and a fourth control signal selectively to said input mechanism;

said second control signal corresponding to a second of multiple compositing modes, the second of said compositing modes corresponding to each of the graphics pipelines providing pixel data associated with an entire frame of the image to be rendered, the pixel data of each of the graphics pipelines including a coordinate value offset with respect to pixel

data of others of the graphics pipelines, said input mechanism being configured to combine the pixel data from the multiple digital video data streams so as to blend color values associated with corresponding coordinate values;

 said third control signal corresponding to a third of multiple compositing modes, a first of said compositing modes corresponding to each of the graphics pipelines providing pixel data associated with a portion of the image to be rendered, the pixel data of each of the graphics pipelines being super sampled, said input mechanism being configured to average, with a selected weighting, the super-sampled pixel data;

said fourth control signal corresponding to a fourth of multiple compositing modes, the fourth of said compositing modes corresponding to each of the graphics pipelines providing pixel data associated with a portion of the image to be rendered, said input mechanism being configured to combine the pixel data from the multiple digital video data streams to form the composite digital video data stream.
